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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,201	06/25/2003	Tammy Burd Mehta	100/05231	4356
21569	7590	09/22/2006	EXAMINER	
CALIPER LIFE SCIENCES, INC. 605 FAIRCHILD DRIVE MOUNTAIN VIEW, CA 94043-2234			TRAN, MY CHAU T	
			ART UNIT	PAPER NUMBER
			1639	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,201	BURD MEHTA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MY-CHAU T. TRAN	1639	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 12-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7-11 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/10/2006 has been entered.

### ***Application and Claims Status***

2. Applicant's amendment and response filed 07/10/2006 are acknowledged and entered.
3. Claims 1-20 were pending. Applicants have amended claims 1, 12, and 17-19. No claims were added and/or cancelled. Therefore, claims 1-20 are currently pending. Claims 4-6 and 12-16 are drawn to non-elected species and/or inventions and thus these claims remain withdrawn from further consideration by the examiner, 37 CFR 1.142(b), there being no allowable generic claim. Accordingly, claims 1-3, 7-11, and 17-20 are under consideration in this Office Action.
4. Applicant is reminded that since applicant has elected to prosecute the product (device of Group I: Claims 1-11, and 17-20), applicants are advised that in accordance with the court decisions in *In re Ochiai*, {71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995)}, and *In re Brouwer* {77 F.3d 422, 37 USPQ2d 1663 (Fed. Cir. 1996)}, in the event that a product claim (Group I:

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Claims 1-11, and 17-20) is found to be allowable, the claim method of use (Group II: Claims 12-16) *which is of the same scope as the allowed product claim* may be rejoined with the allowed product claim.

***Status of Claim(s) Objection(s) and/or Rejection(s)***

5. The rejection of claims 1, 2, 8-11, and 17-19 under 35 USC 102(e) as being anticipated by Nelson et al. (US Patent 6,007,690; filing date of 07/30/1996) has been withdrawn in light of applicant's amendments of claims 1 and 17, and arguments. All other rejections are maintained and the arguments are addressed below.

***Maintained Rejection(s)***

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 7, 9-11, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Parce et al. (US Patent 5,942,443; filing date of 06/28/1996).

The applied reference has common inventors (i.e. John Wallace Parce, Anne R. Kopf-Sill, and Luc J. Bousse) with the instant application. Based upon the earlier effective U.S. filing

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date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

For *claims 1 and 17*, Parce et al. teach microfluidic devices and methods for performing high-throughput screening assays (see e.g. Abstract; col. 2, lines 36-43; col. 3, lines 3-51). Figures 3 and 4 illustrate one type of microfluidic device wherein the comprises a substrate (ref. # 302), a series of parallel reaction channels (ref. # 312-324)(refers to instant claimed narrow channel), sample injection channel (ref. #304) (refers to instant claimed broad channel), seeding channel (ref. #306), collection channel (ref. #308), and bead resting wells (ref. #326-338)(see e.g. col. 16, line 1 thru col. 18, line 65; figs. 3 and 4). As shown in figure 3, the parallel reaction channel is within the sample injection channel, and is “deeper” than the sample injection channel, and in addition the bead flow into the parallel reaction channel.

For *claims 2, 3, and 7*, Parce et al. disclose that the bead comprises immobilized test compound that include nucleic acids (see e.g. col. 6, line 60 thru col. 7, line 19; col. 16, line 47-52).

For *claims 9-11*, Parce et al. teach that the dimension of the channels ranges from 1  $\mu\text{m}$  to 500  $\mu\text{m}$  (see e.g. col. 3, lines 8-10; col. 8, lines 43-57).

For *claims 17-20*, Parce et al. teach that the device also comprises a fluid direction means such as a pump or electrodes (refers to instant claimed fluid direction system of claim 17) and a computer system (see e.g. col. 12, lines 11-44; col. 21, lines 7-11).

Therefore, the device of Parce et al. anticipates the presently claimed apparatus.

***Response to Arguments***

8. Applicant's arguments directed to the above 102(e) rejection were considered but they are not persuasive for the following reasons. Please note that the above rejection has been modified from its original version to more clearly address applicant's newly amended and/or added claims and/or arguments.

[1] Applicant contends that '*Parce et al. do not teach "a broad channel with a narrow channel within the broad channel, wherein the narrow channel is deeper than the broad channel."*' Thus, *Parce et al.* do not anticipate the presently claimed apparatus.

This is not found persuasive for the following reasons:

[1] The examiner respectfully disagrees. It is the examiner's position that the device of *Parce et al.* anticipates the presently claimed apparatus because *Parce et al.* do teach the limitation of "*a broad channel with a narrow channel within the broad channel wherein the narrow channel is deeper than the broad channel*". As shown in figure 3, the parallel reaction channel is within the sample injection channel, and is "deeper" than the sample injection channel, i.e. "*a broad channel with a narrow channel within the broad channel wherein the narrow channel is deeper than the broad channel*". Although there is the bead resting well (e.g. ref. #326) between the sample injection channel and the parallel reaction channel, the "comprise" language of the instantly claimed microcavity does not exclude additional structural feature.

Therefore, the device of *Parce et al.* anticipates the presently claimed apparatus, and the rejection is maintained.

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9. Claims 1-3, 7, 9-11, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Parce et al. (US Patent 6,429,025 B1; *filing date of 03/19/1998*).

The applied reference has common inventors (i.e. John Wallace Parce, Anne R. Kopf-Sill, and Luc J. Bousse) with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

For **claims 1 and 17**, Parce et al. teach microfluidic devices and methods for performing high-throughput screening assays (see e.g. Abstract; col. 3, line 19 thru col. 4, line 15; col. 10, lines 15-34). Figures 3 and 4 illustrate one type of microfluidic device wherein the comprises a substrate (ref. # 302), a series of parallel reaction channels (ref. # 312-324)(refers to instant claimed narrow channel), sample injection channel (ref. #304) (refers to instant claimed broad channel), seeding channel (ref. #306), collection channel (ref. #308), and bead resting wells (ref. #326-338)(see e.g. col. 25, line 17 thru col. 28, line 16; figs. 3 and 4). As shown in figure 3, the parallel reaction channel is within the sample injection channel, and is “deeper” than the sample injection channel, and in addition the bead flow into the parallel reaction channel.

For **claims 2, 3, and 7**, Parce et al. disclose that the bead comprises immobilized test compound that include nucleic acids (see e.g. col. 9, lines 12-43; col. 25, line 65 thru col. 26, line 3).

For **claims 9-11**, Parce et al. teach that the dimension of the channels ranges from 1  $\mu\text{m}$  to 500  $\mu\text{m}$  (see e.g. col. 3, lines 39-41; col. 16, lines 6-20).

For *claims 17-20*, Parce et al. teach that the device also comprises a fluid direction means such as a pump or electrodes (refers to instant claimed fluid direction system of claim 17) and a computer system (see e.g. col. 19, lines 48 thru col. 20, line 14; col. 31, lines 14-22).

Therefore, the device of Parce et al. anticipates the presently claimed apparatus.

### *Response to Arguments*

10. Applicant's arguments directed to the above 102(e) rejection were considered but they are not persuasive for the following reasons. Please note that the above rejection has been modified from its original version to more clearly address applicant's newly amended and/or added claims and/or arguments.

[1] Applicant alleges that '*Parce et al. do not teach "a broad channel with a narrow channel within the broad channel, wherein the narrow channel is deeper than the broad channel."*' Thus, Parce et al. do not anticipate the presently claimed apparatus.

This is not found persuasive for the following reasons:

[1] The examiner respectfully disagrees. It is the examiner's position that the device of Parce et al. anticipates the presently claimed apparatus because Parce et al. do teach the limitation of "*a broad channel with a narrow channel within the broad channel wherein the narrow channel is deeper than the broad channel*". As shown in figure 3, the parallel reaction channel is within the sample injection channel, and is "deeper" than the sample injection channel, i.e. "*a broad channel with a narrow channel within the broad channel wherein the narrow channel is deeper than the broad channel*". Although there is the bead resting well (e.g. ref. #326) between the sample injection channel and the parallel reaction channel, the "comprise" language of the instantly claimed microcavity does not exclude additional structural feature.



Therefore, the device of Parce et al. anticipates the presently claimed apparatus, and the rejection is maintained.

***New Rejection(s) – Necessitated by Amendment***

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1-3, 7-11, and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Both claims 1 and 17 recite the limitation of “*wherein the narrow channel is deeper than the broad channel*”. This limitation, which limits the structural feature of the instantly claimed ‘*narrow channel*’, is not supported by the originally filed specification and/or claims; nor has applicant provided any indication where such support exists. For example, figure 1B illustrates a narrow channel (ref. #140) within a broad channel (ref. #160) wherein the broad channel is deeper than the narrow channel (see specification, pg. 23, paragraph [0092]). In addition, figure 11B illustrates a narrow channel (ref. #1160) within a broad channel (ref. #1150) wherein the broad channel is deeper than the narrow channel (see specification, pg. 23, paragraph [0105]). Consequently, the limitation of “*wherein the narrow channel is deeper than the broad channel*”

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has no specification or original claim support, and it is considered new matter. If applicants disagree, applicant should present a detailed analysis as to why the claimed subject matter has clear support in the originally filed specification and/or claims.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras, Jr., can be reached on 571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

My-Chau T. Tran  
Patent Examiner  
September 18, 2006

